

THE SEARCH FOR CAUSE & CURE

Scientists, doctors, nurses and patients at the Centre are focused on the search for:

- Causes of Parkinson's Disease;
- Side effects of drugs and surgical procedures;
- Psychiatric and cognitive effects of the disease;
- What Parkinson's can teach us about the role that dopamine plays in brain phenomena; and
- A cure for Parkinson's Disease.

They are deeply committed to solving the mystery of Parkinson's Disease and working together to find answers to:

- What causes specific nerve cells to die?
- What causes the wide range of symptoms?
- Why are we seeing more cases of Parkinson's Disease?
- And, most important – how can we improve treatment?

“Good patient care, personal attention and a professional attitude have been my experience as a patient of Dr. Stoessel and his team at the Pacific Parkinson's Research Centre. Their care helps me to maintain a positive outlook on how to live daily with Parkinson's Disease.”

Dirk O., patient

Answers can only be found through continued research, patient care and participation, and funding - please contact us to find out how you can help.



www.pacificparkinsons.org



HELP US UNLOCK THE MYSTERY

The Pacific Parkinson's Research Centre is striving to identify the tangle of genetic, neurological, chemical, environmental and other as yet unidentified factors that contribute to Parkinson's Disease.

The Pacific Parkinson's Research Institute is committed to funding the Centre, ensuring that it sustains its role as a leader in research and clinical care. We can only do so with support from you.

Contributions can be made through major gifts, annuities, annual and planned giving programs. The Institute's administration costs are kept to 5%, so your donation does what you intend it to do: support the Centre.

Your generosity will give people affected by Parkinson's Disease and their families what they need most – HOPE

TO LEARN MORE AND SUPPORT THIS VITAL RESEARCH CONTACT:

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The Institute is registered as a Charitable Society under the Societies Act of British Columbia: Charitable Registration No. 891567349RR0001

SUSTAINING LEADERSHIP IN THE SEARCH FOR CAUSE & CURE

PACIFIC PARKINSON'S RESEARCH INSTITUTE



Parkinson's is the second most common degenerative disorder in Canada, affecting over 100,000 Canadians and their families.



www.pacificparkinsons.org

THE PACIFIC PARKINSON'S RESEARCH CENTRE is a leading clinical research facility dedicated to the search for the cause and cure of Parkinson's Disease.

THE PACIFIC PARKINSON'S RESEARCH INSTITUTE is the principle supporter of the Centre and is dedicated to raising the funds that ensure the Centre's essential work continues.

THE MYSTERY OF PARKINSON'S DISEASE

Parkinson's Disease is a devastating affliction causing physical and mental destruction. It is caused by the loss of cells in the brain, most notably those that produce dopamine, a chemical that allows the smooth functioning of the body's muscles and movement - essentially, the oil for our body's engine. Most cases of the disease are diagnosed in later life, which means that the incidence of Parkinson's will increase as the population ages. However, statistics show that the disease is increasing at a rate faster than that which can be explained by an aging population.

Why this is happening is part of the mystery of Parkinson's. The need for answers is more urgent than ever – answers that can only be found through research. And research can only continue with funding.

ACHIEVEMENTS & GOALS

IMAGING

In the investigation of Parkinson's Disease, Magnetic Resonance Imaging (MRI) and positron emission tomography (PET) are of major importance. PET scanning facilitates the study of disease origin and the impacts of various treatments. State-of-the-art scanning allows detailed study of treatment responses in previously hidden regions of the brain. The Centre is fortunate to have dedicated access to TRIUMF, a national multi-university nuclear physics lab, which allows its investigators to explore aspects of brain chemistry in ways available to very few other centres in the world.

Genetic mutation is one cause of Parkinson's Disease. Imaging studies performed at the Centre have been crucial in identifying the gene mutation that is one of the most common causes of late onset Parkinson's. Continued genetic investigation is needed to identify interventions that will slow or halt the disease. The researchers are looking for a possible interaction between environmental and occupational factors and genetic predispositions that will provide further clues to risk factors that are applicable to the general population.

THE PLACEBO EFFECT

A critical breakthrough pioneered by the Centre's experts has been the demonstration that dopamine release can be triggered by the use of placebos. Placebos exert an 'expectancy' effect. The fact that this can result in the physical release of dopamine sheds important new light on brain behaviour. This groundbreaking finding has received international attention because it significantly advances the understanding of the placebo effect and helps guide directions for future clinical trials.

THE FUTURE

All the Centre's investigations are establishing a better understanding of the role of brain chemistry and genetics in the mystery that is Parkinson's Disease. The information gleaned from each set of studies helps to determine new areas for investigation and, ultimately, cause & cure.



A UNIQUE APPROACH

Using unique tools to explore Parkinson's Disease by examining brain chemistry, the Centre draws on a large pool of patients to conduct research in collaboration with other institutions in the US, Europe and Asia. As a result of this work they have been designated a Centre of Excellence by the National Parkinson's Foundation in the United States.

The Centre has a strong track record of peer-reviewed, published research which it presents at international meetings. These meetings are critically important to the Centre's ability to continue to expand its knowledge and maintain its high standards. The Centre's contributions to breakthrough research have been published in prestigious journals such as *Science*, *Brain*, *Annals of Neurology* and *Lancet Neurology*, and been the subject of PBS and BBC documentaries.

To make the most of its expertise the Centre has pioneered the most effective model for advancing improved understanding and treatment of Parkinson's Disease: putting everyone in one place. Having medical staff, researchers, patients and other members of the team together means better communication, more engagement and improved results. This unique approach has been so successful that it has been adopted by the new Centre for Brain Health at UBC.

In addition, the Centre's relationship with UBC provides access to a vast range of resources and experts in basic neuroscience, physics, electrical engineering, radiochemistry and statistics. This sophisticated mix of clinical and academic skills widens the scope of investigation and opens the doors to exciting new areas of understanding and discovery.

"As we are both a research and a clinical centre we depend upon patients' generous participation in our research studies. I believe they benefit from their active engagement."

*Dr. Jon Stoessl, Director,
Pacific Parkinson's Research Centre*